

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for manufacturing a prescribed semiconductor device by forming a film mainly formed of tungsten and a film of silicon on a semiconductor substrate, comprising:

forming a first layer, which is formed of the film of the silicon, on the semiconductor substrate;

forming a second layer, which is formed of the film mainly formed of the tungsten, on the semiconductor substrate; and

selectively forming an oxide film on an exposed surface of the first layer by plasma processing at a process temperature of 300°C or more using a process gas ~~containing an inert gas, oxygen gas and hydrogen~~ consisting of Ar, O₂ gas, and H₂ gas at a flow rate ratio (hydrogen H₂ gas flow rate/oxygen O₂ gas flow rate) of the hydrogen H₂ gas to the oxygen O₂ gas of 2 or more and 4 or less so as not to form the oxide film on an exposed surface of the second layer.

Claim 2 (Original): The method for manufacturing a semiconductor device according to claim 1, wherein the semiconductor device is a transistor, and a gate electrode is formed of the first layer and the second layer.

Claim 3 (Previously Presented): The method for manufacturing a semiconductor device according to claim 1, wherein the second layer is a tungsten layer or a tungsten silicide layer.

Claims 4-6 (Canceled)

Claim 7 (Currently Amended): A method for plasma oxidation of a film of silicon of a semiconductor substrate on which the film mainly formed of the tungsten and the film of the silicon are formed, comprising:

selectively forming an oxide film on an exposed surface of the film of the silicon by plasma processing at a process temperature of 300°C or more using a process gas ~~containing an inert gas oxygen gas and hydrogen~~ consisting of Ar gas, O₂ gas and H₂ gas at a flow rate ratio (~~hydrogen H₂ gas flow rate/oxygen O₂ gas flow rate~~) of the ~~hydrogen H₂ gas~~ to the ~~oxygen O₂ gas~~ of 2 or more and 4 or less so as not to form the oxide film on an exposed surface of the film mainly formed of the tungsten.

Claim 8 (Previously Presented): The plasma oxidation method according to claim 7, wherein the plasma is excited by a microwave.

Claim 9 (Canceled)

Claim 10 (Previously Presented): The plasma oxidation method according to claim 1, wherein the first layer is a polysilicon layer.

Claim 11 (Currently Amended): A method for plasma processing, in a processing chamber, of a substrate including a high ~~temperature~~ melting point metallic member and a film containing silicon, comprising:

supplying ~~an inert gas, oxygen gas and hydrogen~~ a process gas consisting of Ar gas, O₂ gas and H₂ gas into the processing chamber at a flow rate ratio (~~hydrogen H₂ gas flow rate/oxygen O₂ gas flow rate~~) of a ~~hydrogen H₂ gas~~ to the ~~oxygen O₂ gas~~ of 2 or more and 4

or less to generate a plasma of said process gas consisting of Ar gas, O₂ gas and H₂ gas
directly on the substrate in the processing chamber; and

selectively oxidizing the film containing the silicon using the plasma of said process
gas consisting of Ar gas, O₂ gas and H₂ gas to form an oxide film at a process temperature of
300°C or more so as not to oxidize the high ~~temperature~~ melting point metallic member.

Claims 12-13 (Canceled).